

## ABSTRACT

A method in a computer system, one embodiment includes accessing a packed data instruction and generating a corresponding set of control bits to cause a processor to alter a top of stack to zero of a programmer visible register file, accessing a floating point instruction and generating a corresponding set of control bits that cause the processor to operate on the programmer visible register file as a stack, but accessing a transition instruction between the packed data instruction and the scalar floating point instruction and generating a corresponding set of control bits to cause the processor to alter tag data to indicate that programmer visible register file is empty. The method advantageously provides a means for clearing the packed data state at the end of blocks of packed data instructions to leave the floating point state in a clear condition for subsequent operations (e.g. floating point calculations).